

AMENDMENTS TO THE SPECIFICATION

Please replace the paragraph on page 4, lines 28-29, with the following paragraph rewritten in amendment format:

A further object with the invention is that a plate may be used where the position of the marks are not known in advance, i.e. ~~arbitrary~~ arbitrarily scattered across the surface of the plate.

Please replace the paragraph on page 4, lines 28-29, with the following paragraph rewritten in amendment format:

A solution to these objects is achieved by using a method as defined in claim 1 and claim 5.

Please replace the paragraph on page 5, line 1, with the following paragraphs rewritten in amendment format:

An advantage with the present invention is that the [[...]] calibration of a stage may be performed that enhances the possibility to align two or more masks to each other during semiconductor manufacture, especially for very small line widths.

Further aspects and advantages are obvious from the description of the preferred embodiments.

Please replace the paragraph on page 5, line 8, with the following paragraph rewritten in amendment format:

Fig. 3 illustrates an example of a standard deviation 3σ converging when performing the method according to the invention.

Please replace the paragraph on page 5, lines 10-20, with the following paragraph rewritten in amendment format:

The principal that the method according to the invention is based upon makes it possible to use a calibration plate which is provided with a number of marks ~~arbitrary~~ arbitrarily scattered across the surface of the plate. A plate provided with $N \times N$ arrays of marks in a grid structure may naturally also be used. The method will provide a possibility to determine the stage distortion function $S(x,y)$ and also the plate distortion function $P(x,y)$ provided at least three different measurement views has been measured including transitional movement and rotational movement as illustrated in connection with examples below.

Please replace the paragraph on page 6, lines 1-2, with the following paragraph rewritten in amendment format:

1. A calibration plate with marks ~~arbitrary~~ arbitrarily scattered across the surface is provided.

Please replace the paragraph on page 6, lines 8-9, with the following paragraph rewritten in amendment format:

3. The calibration plate is ~~arbitrary~~ arbitrarily placed on the stage to establish different measurement views.

Please replace the paragraph on beginning on page 6, line 14, and ending on page 7, line 12, with the following paragraph rewritten in amendment format:

Figure 1 shows a flow chart for measuring the position of the marks on the plate in different measurement views for calibration purposes. The flow starts in step

100 and proceeds to step 101, where the flow is fed back to point 102 as long as the system ~~[[wait]]~~waits for a decision to start gathering position data for a subsequent calibration procedure of the stage. The flow proceeds to step 103 when the gathering begins and a calibration plate provided with marks ~~arbitrary~~ arbitrarily scattered across the surface. The number of marks is typically 400-500 for a plate having the size 800 x 800 mm. An integer M is set to a (M=1) in step 104, where M stands for the number of different measurement views. In the following step 105, the plate is placed in a first position (M=1) on the stage. The positions for each mark in at least the x and y direction is measured in step 106 and the result from the measurement is stored in a memory or database, step 107. In step 108 the value of M is checked, and if $M < 3$ the flow is fed back to point 109 via step 110, where the value of M is increased by one ($M=M+1$), and step 111, where a new measurement view is determined including translation movement and rotational movement. Steps 105 to 108 are repeated until $M \geq 3$ and the flow continues to step 112, where it is possible to measure additional measurements views. If another measurement view is to be measured, the flow is fed back to point 109 via step 110 and step 111, as described before, and steps 104 to 108 are repeated again. The flow ends in step 113 if no more measurements are to be performed (step 114). If, on the other hand, the calibration procedure is to be performed, the flow proceeds to step 200 in figure 2.